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John L. Rogitz
Rogitz & Associates
Suite 3120
750 B Street
San Diego, CA 92101

EXAMINER	
ALBERTALLI, BRIAN LOUIS	
ART UNIT	**PAPER NUMBER**
2655	

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/851,675	STENSMO, JAN MAGNUS	
	Examiner	Art Unit	
	Brian L Albertalli	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18-27* is/are allowed.

6)☒ Claim(s) *1,13 and 17* is/are rejected.

7)☒ Claim(s) *2-12 and 13-16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment to claim 1, filed on October 15, 2004, has been fully considered, but introduces new matter into the disclosure (see 35 U.S.C. 132).

Claim 1 has been amended on line 4 to remove the limitation that a window must be created around each and every word in a document. However, in every instance of the description of the creation of context windows in the specification, the context windows are created around *each* word in a document (see page 3, line 13 and line 18; page 6, line 12; page 7, line 7; page 14, line 16; and page 15, lines 11-12). There is no language in the specification to suggest that the context windows can be created around anything less that *each and every word in a document.*

In one instance (page 8, lines 7-8) the specification cites that "context windows are created for the text" without expressly stating the context windows are created for *each* word in the text. This passage does not, however, give any indication that the context windows are created for *less* than each word or *at least some of* the words, either. There is absolutely *no* language in the specification (such as "*context windows could be created around some of the words in the document* "or "*although the context windows described herein are created around each word in the document, it is possible to create the context windows around less than each and every word*") to suggest that, at the time of invention, it was contemplated to create the context vectors around *at least some of* the words in a document. Therefore, given that every other description in the specification requires that the context windows are created around *each* word in the

text, and lacking any language indicating that the context windows can be created around anything less than *each* word in the text, one can only conclude that in this instance as well, the context windows are created for *each* word in the text.

2. Therefore, claim 1 has been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

3. For the purposes of examination, claim 1 has been treated as amended. Claim 1, as amended has been rejected under 35 U.S.C. 102(e) as being anticipated by Brewster et al. (U.S. Patent 6,070,133).

Response to Arguments

4. Applicant's arguments, see page 8, line 15 to page 9, line 16, filed October 15, 2004, with respect to claims 18 and 26 have been fully considered and are persuasive. The rejections of claims 18-26 have been withdrawn.

5. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1, as amended, introduces new matter into the disclosure by broadening the "each said word" limitation. See discussion above under the Response to Amendment heading.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 1, as currently amended, and claims 13 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Brewster et al. (U.S. Patent 6,070,133).

In regard to claim 1, Brewster et al. disclose a method comprising:

inputting the text of one or more documents, wherein each document includes human readable words (a individual document of words is analyzed, column 6, lines 19-20 and lines 31-33);

creating context windows around at least some of said words in each document (a document is partitioned into a pseudo corpus of overlapping windows, the overlapping windows being 120 words long and centered on every 60^{th} word, column 6, lines 33-40);

generating a statistical evaluation of the characteristics of all the windows, wherein the results are not a function of the order of the appearance of words within each window; and

combining the results of the statistical evaluation for each window (column 8, lines 8-10)

For each term j, each window is evaluated to determine if the word j occurs within the window (generating a statistical evaluation). The evaluation only determines whether the word j appears in the window or not. Therefore, the evaluation for each window is not a function of the order of appearance of the words within each window (column 8, lines 12-14). The results of the evaluation are then combined to determine the probability (percentage) $P(term_j)$, which is the probability that a term j appears in a window. The probability $P(term_j)$ is inherently a combination of the statistical evaluation of each window (the sum of all the windows that do contain the word j divided by the total number of windows).

In regard to claim 13, Brewster et al. disclose the step of creating context windows around each word further comprises the step of selecting the words appearing before and after each word by a predetermined amount in the document and including those selected words in the window (a predetermined window size of 120 words is used and no words are omitted, column 6, lines 33-38; this is equivalent to 60 words before and 59 words after a center word, or vice versa).

In regard to claim 17, Brewster et al. disclose averaging probability assessments (the probability $P(term_j)$ is inherently a combination of the statistical evaluation of each window, i.e. the sum of all the windows that do contain the word j divided by the total number of windows, column 8, lines 8-10).

Allowable Subject Matter

10. Claims 2-12, and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 2, Brewster et al. only use the combined statistical evaluation for each window to determine parameters used to generate mathematical signal that is used to create a visualization of the subtopic structure of the document. The combined

statistical evaluation is not used to determine the likelihood of the documents having any predetermined subtopic.

Claim 3 further limits claim 2; therefore claim 3 would also be allowable.

In regard to claim 4, Brewster et al. do not define any document categories in which the full documents can be classified.

In regard to claim 5, Brewster et al. do not disclose and do not suggest that the disclosed invention could be utilized for word sense disambiguation, which is necessary to determine the word in the center of a particular window.

In regard to claim 6, Brewster et al. do not disclose counting the occurrences of particular documents and tabulating totals of the counts.

Claims 7-12 further limit claim 6; therefore claim 3 would also be allowable.

In regard to claim 14, Brewster et al. create windows in which no words are omitted.

In regard to claim 15, Brewster et al. do not normalize the combined results of the windows and provide no suggestion as to why any normalization of the combined results would be beneficial.

In regard to claim 16, Brewster et al. do not disclose any indication of using mutual information to evaluate the context windows.

11. Claims 18-27 are allowed over the prior art of record. The following is an examiner's statement of reasons for allowance:

In regard to claims 18 and 26, the prior art of record does not disclose and would not suggest to one of ordinary skill in the art at the time of invention, in addition to the other features of the claims, the step of creating context windows around *each and every word* in a document. Nearly all prior art teachings perform some type of preprocessing, such as removing common stopwords, or create context windows around a selection of words in a document in order to reduce the amount of processing needed to evaluate a document.

12. Claims 19-25 and claim 27 further limit claims 18 and 26; therefore, claims 19-25 and claim 27 would also be allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sproat et al. (U.S. Patent 6,256,629) disclose a method that creates context windows around every occurrence of a particular word in a document and generates a statistical evaluation based on the combined results of those windows.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (703) 305-1817. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 305-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 1/31/05

TĀLIVALDIS IVARS ŠMITS
PRIMARY EXAMINER